Begin

Reel #279

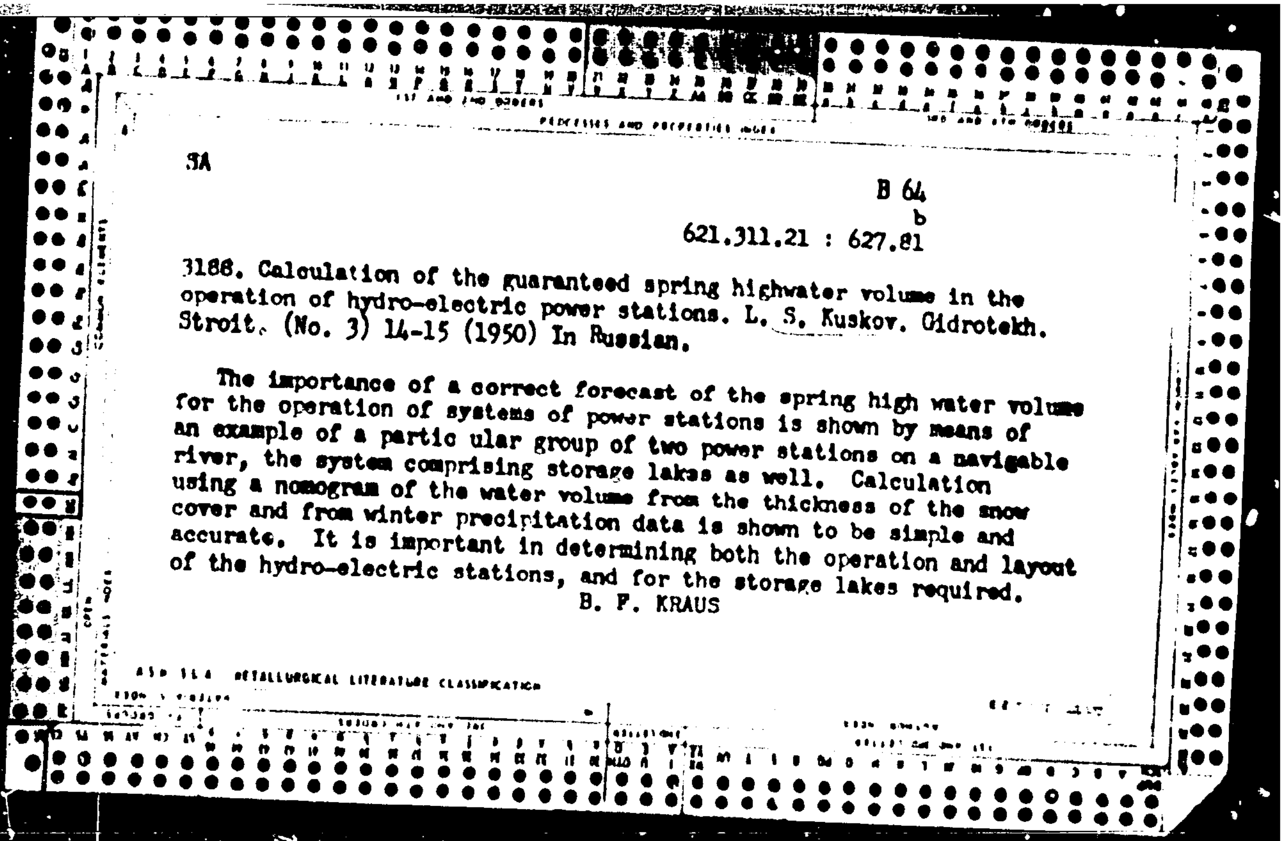
Kuskov, L.

KUSKOV, L., inzh.

Consider the interests of the river fleet in operating complex hydraulic engineering systems. Rech. transp. 22 no.10:38-40 O '63. (MIRA 16:12)

AGAFONOV, D.F., inzhener; KUSKOV, L.S., inzhener.

Ten years of the Moscow-Volga canal. Gor.khoz.Mosk. 21 no.5:1-13 My '47.
(MLRA 6:11)
(Moscow canal)



PROCESSES AND PROPERTIES INDEX

5A

B 64
b
621.311.21 : 627.81

3188. Calculation of the guaranteed spring highwater volume in the operation of hydro-electric power stations. L. S. Kuskov. Gidrotekh. Stroit. (No. 3) 14-15 (1950) In Russian.

The importance of a correct forecast of the spring high water volume for the operation of systems of power stations is shown by means of an example of a partic ular group of two power stations on a navigable river, the system comprising storage lakes as well. Calculation using a nomogram of the water volume from the thickness of the snow cover and from winter precipitation data is shown to be simple and accurate. It is important in determining both the operation and layout of the hydro-electric stations, and for the storage lakes required.

B. F. KRAUS

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KUSKOV, L.S., inzhener; POLIN, Kh.M., inzhener.

Calculating maximum flow of river water in planning hydraulic structures. Gidr. stroi. 25 no.4:25-28 My '56. (MLRA 9:9)
(Hydraulic engineering)

KUSKOV, L. S.

USSR/Engineering - Power Stations Apr 51

"Measures Against Ground Ice and Floating Ice in Water Channels of Hydroelectric Power Stations," B. M. Fradkin, L. S. Kuskov, Engineers

"Gidrotekh Stroi" No 4, pp 14-16

Describes numerous cases of frosting and clogging with ice of grates in feeding channels of many hydroelec stations during winter of 1950. Concludes that clogging of grates may occur in majority of stations located in the middle part of European USSR and suggests 2 preventive measures: sp devices for heating the grates or removing ice from grates with steam or water under pressure and devices for complete or partial lifting of grates.

PA 187T52

KUSKOV, L. S.

USSR/Engineering - Hydraulics, Dams Jan 52

"Certain Exploitation Problems of Multispan River Dams," L.S. Kuskov, V. S. Nekrasov, Engineers

"Gidrotekh Stroi" No 1, pp 25-30

Clarifies certain exploitation factors which may be useful in planning new hydraulic centers. Discusses various problems, such as passing water through a dam, spillway weirs with seasonal or daily regulation of discharge, permissible opening height of dam gates when there are ice and floating objects in reservoir, causes of river bank erosion, etc. Gives some operational and constructional suggestions.

212T58

1. TVERDISLOV, A.A., KUSKOV, L. S.

2. USSR (600)

4. Inland Navigation

7. Reconstruction of the waterways of the U.S.S.R. Rech.transp. No. 6 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

KUSKOV, L. S.

Canals

"Water regime of canals." Rech transp. 12 no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 1952, Uncl.

KUSKOV, L.

Volga-Don Canal

The flag is raised. Tekh. molod. 20 No. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 195~~3~~2 Uncl.

[illegible], [illegible], [illegible], [illegible], L.S. [illegible]

Volga-Don Canal

Operating conditions of the Volga-Don waterway. Gidr.stroi. [illegible], [illegible], 1952.

9. *Monthly List of Russian Accessions*, Library of Congress, ____________ 1953, Uncl.

KISKOV, L. S

N/5
756.18
.K9

Gidravlicheskiy rezhim sudokhodnykh kanalov (Hydraulic Regime of Navigable Channels) Moskva, Vodtransizdat, 1954
86 p. maps, graphs, diagrs., tables.
Bibliographical footnotes

KUSKOV, L.S.

Vodnoe khoziaistvo gidroelektrostantsii (Water supply of hydroelectric power stations). Moskva, Gosenergoizdat, 1954. 294 p.

SO: Monthly List of Russian Accessions, Vol. 7, No. 5, August 1954

KUSKOV, L.S.

KUSKOV, L.S.; BOGDANOV, A.T., redaktor.

[Hydroelectric power station water resources management] Vodnoe khoziaistvo gidroelektrostantsii. Moskva, Gos. energ. izd-vo, 1954. 284 p. (MLRA 7:7)
(Hydroelectric power stations) (Hydraulic engineering)
(Hydrology)

ZHDANOV, Vladimir Sergeyevich; ~~KUSKOV, Lev Sergeyevich~~; LAVRINOVICH, Lev Petrovich; MEZHNEV, Dmitriy Ivanovich; POROCHKIN, Yevgeniy Makarovich; RUMYANTSEV, Aleksandr Mikhaylovich; SVETLOV, Mikhail Fedorovich; YARUSTOVSKIY, Andrey Aleksandrovich; RZHANITSYN, N.A., kandidat tekhnicheskikh nauk, redaktor; VINOGRADOVA, N.M., redaktor izdatel'stva; SALAZKOV, N.P., tekhnicheskiy redaktor

[Operation of hydraulic engineering installations] Ekspluatatsiia gidrotekhnicheskikh sooruzhenii. Pod red. N.A.Rzhanitsyna. Moskva, Izd-vo "Rechnoi transport," 1956. 406 p. (MLRA 10:2)
(Hydraulic engineering)

KUSKOV, L.S.

2

621.22

504. **ON THE DETERMINATION OF MAXIMUM WATER FLOW OF RIVERS FOR THE DESIGN OF HYDRAULIC ENGINEERING STRUCTURES.** L.S.Kuskov and Kh.M.Polin. Gidrotekh. Stroit., 1956, No. 4, 25-8. In Russian.

Discusses the background of the present Soviet regulations stipulating a maximum design water flow based on one occurrence in 1000-10 000 years from a statistical formula based on U.S.A. conditions. Highest ever observed water flow with the year of its occurrence, and the total number of observation years, ranging from 25 to 121, are tabulated for 21 larger rivers of the Soviet Union together with the probability of the occurence of this high water flow calculated statistically. On this basis easing of the present regulation is advocated which would lead to about 25% savings in constructional costs.

F.Uesemann

KUSKOV, L.S., inzhener.

Special features of navigation in water reservoirs and the tailrace of hydroelectric installations. Rech.transp. 15 no.1:19-23 Ja '56. (MLRA 9:5)

(Inland navigation) (Hydraulic engineering)

KUSKOV, L.S., inzhener.

Changes in navigation on the Volga caused he construction of
Kuybyshev Hydroelectric Power Station. Re asp. 15 no.7:22-23
Jl '56. (MIRA 9:9)
(Volga River--Navigation)(Kuybyshev Hydroelectric Power Station)

KUSTOV Lev Sergeyevich; ISLANKINA, T.F., redaktor; GUBIN, M.I., tekhnicheskiy redaktor.

[New seas] Novye moria. Moskva, Izd-vo "Znanie," 1957. 31 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.4, no.23) (MIRA 10:11)
(Reservoirs)

KUSKOV, Lev Sergeyevich; BOGDANOV, A.T., retsenzent; POLIN, Kh.M., retsenzent; LAGAR'KOV, N.I., red.; DOBRONRAVOVA, S.M., red.izd-va; SALAZKOV, N.P., tekhn.red.

[Hydrological and water supply calculations in the exploitation of reservoirs] Gidrologicheskie i vodokhoziaistvennye raschety pri ekspluatatsii vodokhranilishch. Moskva, Izd-vo "Rechnoi transport," 1957. 247 p. (MIRA 11:4)
(Hydrology--Tables, calculations, etc.)

GRIGOR'YEV, Sergey Nikolayevich; KUSKOV, Lev Sergeyevich; SUTYRIN, M.A., inzh., retsenzent; LAPTEV, M.I., red.; FEDYAYEVA, N.A., red.izd-va; YERMAKOVA, T.T., tekhn.red.

[General navigation manual on reservoirs and tailwaters at hydraulic construction projects] Obshchaia lotsiia vodokhranilishch i nizhnikh b'efor gidrouzlov. Moskva, Izd-vo "Rechnoi transport," 1959. 121 p. (MIRA 12:11)

(Inland navigation)

KORSHUNOV, S., inzh.; KUSKOV, L., INZH.

Problems of navigation on the Angara during the period of filling the Bratsk Reservoir. Rech.transp. 19 no.5:32-36 My '60.
(MIRA 13:7)

(Angara—Inland navigation)
(Bratsk—Reservoir)

KUSKOV, L.; SHEVCHENKO, M.

Seiches on Lake Erie [from "Journals of the Waterways and Harbors Division" June 1959]. Rech. transp. 19 no.12:52-53 D '60.
(MIRA 13:12)

(Lake Erie—Seiches)

ZHDANOV, Vladimir Sergeyevich; KUSKOV, Lev Sergeyevich; LAVRINOVICH, Lev Petrovich; MEZHNEV, Dmitriy Ivanovich; POROCHKIN, Yevgeniy Makarovich; RUMYANTSEV, Aleksandr Mikhaylovich; SVETLOV, Mikhail Fedorovich, YARUSTOVSKIY, Andrey Aleksandrovich; LAGAR'KOV, N.I., red.; PEREKHVAL'SKIY, V.S., retsenzent; FEDYAYEVA, N.A., red. izd-va; RIDNAYA, I.V., tekhn. red.

[Operation of hydraulic structures] Ekspluatatsiia gidrotekhnicheskikh sooruzhenii. Izd.2. By V.S.Zhdanov i dr. Moskva, Izd-vo "Rechnoi transport," 1961. 289 p. (MIRA 15:2)
(Hydraulic structures)

KUSKOV, Lev Sergeyevich; BUKHARTSEV, A.N., red.

[Water resources of hydroelectric power stations] Vodnoe khoziaistvo gidroelektrostantsii. Moskva, Energiia, 1964. 194 p. (MIRA 18:2)

KUSKOV, N.; ZAIKIN, D.

Roadside improvement in the Russian Federation. Avt. dor. 22
no.5:15-16 My '59. (MIRA 12:8)
(Roadside improvement)

KUSKOV, N., inzh.; ZAIKIN, D., inzh.

Construction of rural roads. Sel'.stroi. 15 no.5:26-28
My '60. (MIRA 13:8)
(Road construction)

KUSKOV, MIN. ENG. P. S.
KUSAKIN, A. A.

Boring Machinery

Electro-pneumatic boring machine. Gor zhur. no. 6, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

[illegible], V

GOLUBEV, P., podpolkovnik; KUSKOV, V., mayor.

Activities of communists have increased remarkably. Voen. sviaz. 16 no.1:5-7 Ja '58. (MIRA 11:2)
(Communist Party of the Soviet Union--Party work)
(Military education)

KUSKOV, Vasiliy Alekseyevich; BILINSKIY, M.Ya., redaktor; OSTRIKOV, N.S., tekhnicheskiy redaktor.

[Carpentry] Stoliarnoe delo. Moskva, Vses.uchebno-pedagog.izd-vo
1955. 495 p. (MLRA 8:12)
(Carpentry)

PROCESSES AND PROPERTIES INDEX

KUSKOV V.K.

10

Diadic tautomerism. G. V. Chelintsev and V. K. Kuskov. *J. Gen. Chem.* (U.S.S.R.) 10, 1481-4(1940)(in Russian).—The mechanism of "anomalous" alkylation of salts of a no. of inorg. acids (H_3AsO_4, H_3PO_4, HNO_3) may be explained on the basis of a tautomeric change of the acid ions involved, i.e., in the case of As the mechanism may be postulated as: $NaOAs(ONa)_2 \xrightarrow{MeI} (^-O-As(ONa)_2 \rightarrow O{:}As(ONa)_2) \rightarrow MeAs(O)(ONa)_2$. This is supported by the following 3 examples of reactions of ethylene oxide (I). (1) $Mg(NO_3)_2$ (23.2 g.) and 200 cc. H_2O were treated with I at below 40° until the wt. gain was 10 g.; after standing for 20 hrs. the mixt. was dild. with 2 vols. H_2O and treated at 0° with a slight excess of PhN_2Cl in slightly alk. soln.; the resulting dye from $EtNO_3$, 6 g., filtered off and crystd. from ligroin as red needles, was identical with the product of Demuth and V. Meyer (*Ann.* 256, 28(1890)). (2) As_2O_3 (20 g.) and 34 g. KOH in 100 cc. water were treated with I 3 hrs. until the wt. gain was 10 g.; after standing for 20 hrs., the mixt. was dild. with 200 cc. water, acidified by 10% H_2SO_4, filtered, and concd. at 60° to a sirup (inorg. matter filtered off); extn. with EtOH gave *2-hydroxyethanearsonic acid* as a clear oil (16 g.) which was converted to *(2-chloroethyl)dichloroarsine*, b_{15} 79-80°, by the conventional treatment with SO_2 in the presence of KI. I fails to react with NaH_2AsO_3 and gives but meager yields of the hydroxyethyl compd. with Na_2HAsO_3. (3) $(EtO)_2PONa$ (from 2.3 g. Na and 13.9 g. $(EtO)_2POH$ in Et_2O) was treated with I until the wt. gain was 4.5 g.; after stirring for 1 hr. the soln. was treated with 6.1 g. AcOH, the NaOAc ppt. was filtered off, and the concd. filtrate gave 7.6 g. oily *2-hydroxyethanephosphonic acid* (?), which distd. only with much decompn., b_3 120-30°. G. M. K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

7c

Kuskov, V.K.
CA

Reaction of ethylene oxide with salts of alkyl- and aryl arsonous acids. V. K. Kuskov and V. N. Vasil'ev. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 90-2(1951). Heating 26.5 g. MeAsO with 28.1 g. KOH in 100 ml. H_2O until dissolved, cooling to room temp., passing ethylene oxide into the soln. until 12 g. gain in wt. is reached, letting stand 12 hrs., dilg. with 200 ml. H_2O, acidifying with 10% H_2SO_4, filtering, evapg. (finally with C_6H_6), and extg. with 150 ml. abs. EtOH gave 25 g. crude $HOCH_2CH_2AsMe(O)OH$, an oil that decomps. on heating. Soln. in H_2O with a little KI and satn. with SO_2 (finally at 50°), letting stand 12 hrs., and evapg. gave 23 g. oily $(HOCH_2CH_2AsMe)_2O$, which with 40 g. $SOCl_2$ gave 52 g. $ClCH_2CH_2AsMeCl$, b_6 60-1°, hydrolyzed by H_2O to the *oxide*, while aq. NaOH yields C_2H_4 and $MeAs(ONa)_2$. Similar series of reactions gave 23% $ClCH_2CH_2AsEtCl$ (undescribed); the *Ph analog* was also prepd. but could not be distd. without decompn. Ph_2AsO, however, failed to react. G. M. Kosolapoff

KUSKOV, V.K.
CA

10

Oxazole derivatives. V. K. Kuskov. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 152-8(1951). New dyes based on oxazole are described. A soln. of 8.95 g. hippuric acid (I) in 20 g. hot Ac_2O is chilled rapidly, and added to 6.9 g. diazotized *p*-nitroaniline (neutralized with NaOAc) at 0°, yielding 5 g. (82%) *4-(p-nitrophenylazo)-2-phenyl-5-hydroxyoxazole*, orange, m. 317° (from dioxane), which, refluxed with aq. alc. NH_3, gave 70% colorless $C_{16}H_{13}O_4N_5$, m. 217°, apparently $BzNHC(CONH_2):NNHC_6H_4NO_2$. Similar reaction of 2 g. I in Ac_2O with 2 g. PhN:NNHPh for 18 hrs. gave 64% yellow *4-phenylazo-2-phenyl-5-hydroxyoxazole*, m. 202-3° (from MeOH), which is obtained in 11% yield by adding to 3.0 g. I in 20 g. Ac_2O at 0° 2.7 g. AcNHPh in 20 g. AcOH treated at 0° with 1.5 g. $NaNO_2$ and letting the mixture stand 48 hrs. Similar reaction with *p,p'*-diazoaminotoluene gave after 18 hrs. 41% *p-tolyl analog*, m. 208-9°, which refluxed with aq. MeOH-NH_3 0.5 hr. gave 77% $BzNHC(CONH_2):NNHC_6H_4Me$-*p*, m. 198-9° (from MeOH). The results indicate that Erlenmeyer's azlactone synthesis proceeds first through cyclization, followed by a crotonic type condensation. [Cf. Erlenmeyer, *Ann.* 275, 1(1893), 271, 137(1892).]

G. M. Kosolapoff

1951

KUSKOV, V. K.

USSR/Chemistry - Phosphorus Organic Compounds

11 Sep 53

"The Interaction of Diethylphosphite With Sodium Alcoholates," V. K. Kuskov and T. Kh. Gradis, Moscow State U

DAN SSSR, Vol 92, No 2, pp 323, 324

Re-esterified diethylphosphite with various alcohols in the presence of alcoholates. The reaction takes place with good yields (over 85%). Obtained dicyclohexyl phosphite, which could not be obtained from re-esterification with phosphoric acid. Presented by Acad S. I. Vol'fkovich 27 Jun 53.

269T16

KUSHKOV, V.K.

Reaction of phenol with phosph[illegible]
V. K. Kushkov [illegible]
[illegible] 1951 [illegible]
C.A. 49 [illegible] H. L. H.

Kuskov, V. K

USSR.

62
2

Reaction of phenol with phosphorus. S. I. Vol'fkovich, V. K. Kuskov, and K. F. Koroteeva. *Izvest. Akad. Nauk ~~S.S.S.R., Otdel.~~ Khim. Nauk* **1954**, 5-8.—Heating P with EtOH in an autoclave at 240-50° and 100 atm. gave a low yield of organo-P derivs., including those, b. 110-220°, whose structure was not detd. The gaseous products contained C_2H_4. At higher temp. noticeable amts. of decompn. products were observed. It is believed that the 1st reaction is dehydration of EtOH and the reaction of the resulting H_2O with P; the resulting products then react with EtOH yielding the various products. PhOH does not react with red P in an autoclave, even at 300°, but in the presence of a little H_2O reaction starts even at 200° with a rise in pressure to 40-150 atm. Thus, a well mixed mixt. of 23.5 g. PhOH, 6.8 g. red P, and 4.5 ml. H_2O heated in an autoclave 4.5 hrs. at 250-65° and 110 atm., then allowed to cool over 12 hrs., gave a residual pressure of 20 atm. the gases being composed principally of H (99.5%). After diln. with H_2O, the residual red P was filtered off (5 g.), washed with Et_2O, the filtrates were warmed to expel Et_2O and extd. with C_6H_6; evapn. of the C_6H_6 gave 2 fractions: 2.8 g. $PhPH_2$, b_1 87-90°, b. 160°, and 1 g. Ph_2PH, b_1 170°, b. 272°. Steam distn. of the PhOH from the aq. portion and evapn. of the residual soln. yielded 4 g. yellowish cryst. product, apparently crude $PhPO_2H_2$. In a similar expt. but with only 2.25 ml. H_2O, heating 16 hrs. to 250° at 50 atm. again yielded Ph_2PH and a mixt. of acids of P. A mixt. of 8.2 g. red P with 23.5 g. dry NaOPh and 3.6 g. H_2O heated in an autoclave in 4 hrs. to 250° (17 atm. pressure developed), kept there 3 hrs., allowed to cool 12 hrs. (residual pressure of 30

S.I, VOL'FOLKOVICH

atm., with gas composed of H and PH_3 was found), extd. with 250 ml. hot H_2O, the ext. neutralized with HCl, the unreacted P filtered off, washed with Et_2O (4 g. P recovered), the combined filtrate heated to expel the Et_2O, extd. with C_6H_6, and the C_6H_6 distd. gave 0.7 g. $PhPH_2$, while the aq. layer, freed of PhOH by steam distn., evapd., the NaCl removed, and the filtrate evapd. further and chilled gave 1 g. crude $PhPO_3Na_2$, contaminated with Na_3PO_4 (contained 17% P); evapn. of the filtrate gave 1.4 g. Na_2HPO_3. By increasing the amt. of H_2O in the reaction to 7.2 ml., the above mixt. gave, after 8 hrs. at 150° and 4 hrs. at 225 and 260°, only traces of phosphines, while the org. ext. gave 1-2 g. $(PhO)_3PO$, along with crude $PhPO_3H_2$ and about 5 g. mixed Na phosphates and phosphites. Heating 11.5 g. NaOPh and 17 g. PhOH with 3.93 g. red P 2 hrs. at 250° (53 atm. pressure developed), then 1 hr. at 275° (56 atm.), gave after cooling a gas mixt. contg. PH_3, while treatment of the products as described above gave 3 g. Ph_2O, along with traces of unidentified organo-P compds. Apparently the reaction of P with PhOH and PhONa in the presence of H_2O proceeds through dismutation analogous to that of P with H_2O alone, so that, instead of PH_3 and inorg. P acids, their phenylated analogs are formed. The following reactions are usable for identification of the products: with PhOH are formed $(PhO)_3PO$ and H_2, with PhONa, $PhPH_2$ and NaH_2PO_3, along with PH_3, $PhPO(OH)ONa$ and $PhPO(ONa)_2$. Cf. Ipatieff, *et al.*, *Zhur. Obshchei Khim.* 1, 6 (1931), C.A. 22, 2365; Berthaud C.A. 1, 720; [illegible], C.A. 1, [illegible]; Brinske and Petrov, C.A. 24, 798. G. M. Kosolapoff

VOL'FKOVICH,S.I.; KUSKOV,V.K.

Chemistry of herbicides and of plant-growth stimulants. Usp.khim. 24 no.5:635-636 '55. (MLRA 8:12)
(Herbicides) (Growth promoting substances)(Mel'nikov,N.N.)(Baskakov,IU.A.)

KUSKOV, V.K.; ZHUKOVA, V.A.

Esterification in presence of boric acid and the synthesis of its esters. Izv.AN SSSR.Otd.khim.nauk no.6:733-738 Je '56. (MIRA 9:9)

1.Otdeleniye khimicheskikh nauk Akademii nauk SSSR.
(Esterification) (Boric acid)

KUSKOV, V.K.

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4162. ALKYLATION OF AROMATIC HYDROCARBONS BY ESTERS OF BORIC ACID. Kuskov, V.K. and Shvitson, B.N. (Dokl. Akad. Nauk SSSR (Rep. Acad. Sci. U.S.S.R.), 21 Jan. 1955, vol. 100, (3), 479-481). (L).

2

Kuskov, V.K.

Chem

Alkylation of aromatic hydrocarbons by esters of boric acid. V. K. Kuskov and B. M. Sheiman. Proc. Acad. Sci. U.S.S.R., Sect. Chem. 106, 83-6(1956)(Engl. translation).—See C.A. 50, 13832i.

B. M. R.

KUSKOV, V.K.; SHEYMAN, B.M.

Alkylation of aromatic hydrocarbons by boric esters. Dokl. AN SSSR 106 no.3:479-481 Ja '56. (MLRA 9:6)

1.Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
Predstavleno akademikom S.I.Vol'fkovichem.
(Aromatic compounds) (Boric acid) (Alkylation)

KUSKOV, V.K.; YUR'YEVA, L.P.

Production of esters and oxyketones by the acylation of aluminium phenolates and arylborates. Dokl. AN SSSR 109 no.2:319-321 Jl '56. (MIRA 9:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova. Predstavleno akademikom S.I. Vol'fkovichem.
(Esters) (Ketones)

KUSKov, V.K.

7 7 5 1

Condensation of aldehydes with acetic anhydride in the presence of boron [illegible]. V. K. Kuskov (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 110, 223-5 (1956).—Heating 10.6 g. BzH, 20 g. Ac_2O, and 1 g. $O[B(OAc)_2]_2$, or 0.4 g. boric anhydride 3 hrs. (4-6 hrs. with B_2O_3), maintaining the dist.-temp. at 120-2° until the flask temp. rose to 180°, followed by refluxing the residue with 30 ml. 50% MeOH, gave 72% cinnamic acid; the yield was 75% when the final reaction residue was refluxed with 4:1 MeOH-H_2O 0.5 hr. and distd. *in vacuo*. If the reaction residue is refluxed in an app. provided with an H_2O trap while 25 ml. BuOH is slowly added to the mixt. over 13 hrs. there is obtained 84% Bu cinnamate, b_2 145-50°. Similarly *m*-$O_2NC_6H_4CHO$ gave *m*-nitrocinnamic acid, m. 193-4°, while hippuric acid gave 63% *2-phenyl-4-benzaloxazolone*, m. 165-6°. In contrast to the usual Perkin reaction, the products do not contain unreacted aldehyde, but do contain resinous materials which are apparently polymers of cinnamic acid, or its derivs.; these polymers dissociate on distn. *in vacuo* and substances like cinnamic acid can be obtained by distn. after treatment with MeOH and H_2O. It is suggested that the catalyst forms an adduct which aids the sepn. of a proton from the Me group of Ac, while the Ac_2O aids a dehydration step. G. M. Kosolapoff

PM mp

Kuskov, V.K.

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4

Condensation of aldehydes with acetic anhydride in the presence of boron acetate. V. K. Kuskov. Proc. Acad. Sci. U.S.S.R., Sect. Chem. 110, 657-9(1956)(English translation).—See C.A. 51, 6058f.

E. M. R.

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4E3d

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KUSKOV, V.K., dotsent.

Academician Semen Isaakovich Vol'fkovich; on the occasion of his 60th birthday. Vest.Mosk.un. 12 no.1:188-191 '57. (MLRA 10:8)
(Vol'fkovich, Semen Isaakovich, 1896-)

VOL'FKOVICH, S.I.;KUSKOV, V.K.

Chemistry of fertilizers and insectofungicides. Vest. Mosk. un. Ser. mat.mekh. astron., fiz., khim. 12 no. 6:125-136 '57.
(MIRA 11:10)

1. Kafedra khimicheskoy tekhnologii Moskovskogo gosudarstvennogo universiteta.
(Agricultural chemicals)

KOSKOV, V. K.

7

✓ Esters of boric acid in the Friedel-Crafts reaction. V. K. [illegible], U. M. Shelman, and Z. I. Makeimova (State Univ., Moscow). *Zhur. Obshchei Khim.* 27, 1454-9(1957). —Esters of boric acid can be used in the Friedel-Crafts form of alkylation of aromatic compds. such as C_6H_6, MePh, *m*-xylene, $PhCl$, and PhOH. The mixt. of $(RO)_3B$ and the aromatic compd. is treated at 20-5° with $AlCl_3$ and the mixt. heated 0.5-14 hrs. at 45-100°, depending on the reactivity of the substrate. Yields of alkylated products range up to 80-2%, although mainly 40-65% yields are obtained. The esters used included $(EtO)_3B$, $(PrO)_3B$, $(BuO)_3B$, (iso-BuO)$_3$B, (iso-AmO)$_3$B, tris(2-ethylhexyl)borate, $(C_8H_{17}O)_3B$, $(C_6H_{11}O)_3B$, $(PhCH_2O)_3B$, $(CH_2{:}CHCH_2O)_3B$, $(ClCH_2CH_2O)_3B$, and ethylene glycol borate. The esters were prepd. by azeotropic dehydration of ROH and $B(OH)_3$ in C_6H_6 with anhyd. $CuSO_4$. Thus were reported: 36% $(EtO)_3B$, b. 117-20°, d_{20} 0.8660, n_D^{20} 1.3775, and tris(2-ethylhexyl)borate, b_1 183-5°, 0.8619, 1.4385. Heating 9.4 g. $(PrO)_3B$ with 9 g. $AlCl_3$ in 65 ml. $PhNO_2$ 3.5 hrs. at 60-75° gave no HCl or PrCl. While predominantly *p*-isomers of alkylated products were obtained, the normally expected *o*-derivs. were also found. Prolonged reaction of C_6H_6 with 3 moles $AlCl_3$ and 1 mole $(EtO)_3Al$ gave 47.2% EtPh and 16.6% $Et_2C_6H_4$; $(MeO)_3Al$ or $(PrO)_3Al$ failed to react. G. M. K.

5

4E4j

1E3d

1/1

SOV/[illegible]

AUTHORS: [illegible]kov, V. [illegible]., [illegible], G. [illegible]., [illegible], [illegible].

TITLE: A New Method of Production of Oxyalkylphosphinic Acids (Novyy sposob polucheniya oksialkilfosfinovykh kislot)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. [illegible], Nr 4, pp. 780-788 (USSR)

ABSTRACT: The esters of boric acid react with phosphorus trichloride not even in case of boiling. On the other hand it easily decomposes phosphorusoxychloride when heated in a water bath; at 0°, however, the reaction proceeds very slowly. In this paper the authors found that boric esters can be easily phosphorylated according to [illegible] -Inglin's reaction (Ref 2) when the reactants are sufficiently cooled. Without cooling phosphorus trichloride is [illegible] ed to oxychloride. At first the mentioned reaction was investigated with tributylborate and triisobutyl borate taken as examples. The ratios of mixture of the reactants and the process of reaction are described. By phosphorylation of trimethyl borate and tribenzyl borate α-oxyphosphinic acids were

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obtained (formerly also from corresponding aldehydes, [illegible]). From butyl borate crystal-like oxybutylphosphinic acid was obtained. From triethyl borate oxyethylphosphinic acid was successfully produced as a not pure lead salt, [illegible] apparently a salt of the unstable α-oxyethylphosphinic acid. The remaining phosphinic acids were produced as lead salts which cannot be crystallized in free state. They [illegible] polymers. In connection with the treatment [illegible] it was attempted to change the obtained [illegible] ethyl ethers. This was carried out by treatment with [illegible] in the presence of pyridine (as in Ref 7). The ether mixture obtained could not be distilled. The attempt to distill the triethyl phosphate in a vacuum resulted in polymerization. One pyrophosphate could, however, be produced [illegible] (Ref 8). Those compounds had a molecular weight of [illegible] instead of the computed 965 and they were apparently polyphosphates. The ethers produced are not very efficient insecticides against *calandra granaria*. There are [illegible] and 9 references, 5 of which are Soviet.

Card [illegible]/3

SOV/20-120-4-[illegible]

A New Method of Production of Oxyalkylphosphinic Acids

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: November 5, 1957, by S. I. Vol'fkovich, Member, Academy of Sciences, USSR

SUBMITTED: October 16, 1957

1. Phosphinic acids--Production 2. Boric acid esters--Chemical analysis 3. Phosphinic acid esters--Properties 4. Lead salts --Properties

Card 3/3

5(3)

AUTHORS: Kuskov, V. K., Neverov, A. N. SOV/79-29-4-17/77

TITLE: On the Reaction of Benzaldehyde and Cyclohexanone With Borates (O vzaimodeystvii benzal'degida i tsiklogeksanona s bornymi efirami)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 4, pp 1127-1129 (USSR)

ABSTRACT: The authors tried in the present paper to synthesize aldehydes by the reaction of alkyl borates with benzaldehyde and cyclohexanone. The reaction of butyl borate with benzaldehyde proceeds normally if the resulting butyric aldehyde is removed by distillation. The yields of benzyl alcohol (apparently a hydrolysis product of benzyl borate) and butyric aldehyde were 71 and 62 %. Besides, a mixture of high-boiling products was formed. The propyl-, isobutyl-, isoamyl-, and glycol borate react in the same way yielding the propion-, isobutyric-, isovaleric- and glycolaldehyde, accordingly (Table). The reaction of benzaldehyde with cyclohexyl borate yields cyclohexanone in a low yield; besides water, cyclohexanol and primarily cyclohexene are obtained. Cyclohexene is formed by the dehydration of cyclohexanol or

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On the Reaction of Benzaldehyde and Cyclohexanone With Borates SOV/79-29-4-17/77

by the cleavage of cyclohexylmetaborate occurring as intermediate product (Ref 5). On the reaction of cyclohexanone with propyl- and butyl borate no aldehydes were obtained, but only propyl- and butyl alcohol could be distilled off. The reaction mass contained a mixture of products in which only one product of the croton condensation of cyclohexanone, the α-cyclohexylidene-cyclohexanone could be identified. Apparently, the cyclohexanone is more rapidly condensed than reduced under the influence of alkyl borates. The water being separated on the condensation hydrolyzes the borates, thus forming the corresponding alcohols. There are 1 table and 15 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: November 10, 1957

Card 2/2

5 (3)

AUTHORS: Kuskov, V. K., Burtseva, T. A. SOV/20-125-4-33/74

TITLE: Production of Alkyl Phenols by Alkylation of Triphenyl Borate (Polucheniye alkilfenolov alkilirovaniyem trifenilborata)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 4, pp 811-813 (USSR)

ABSTRACT: The alkylation of phenol by alkyl halides (according to Fridel-Krafts) is possible without any difficulties only with reactive tertiary alkyl halides. In the case of primary and secondary alkyl halides it is possible that the alkylation is complicated by the reaction of aluminum chloride with phenol in heat. In the present paper the authors found that triphenyl borate is easily alkylated in the presence of catalytic amounts of aluminum chloride by alkyl halides (see equation). However, it is not necessary that all 3 phenyl groups are alkylated. Apart from alkyl phenols always dialkyl phenols and phenol have been produced. All products are soluble in 10% NaOH. The reaction proceeds successfully under normal conditions. After the alkylation had been finished the mixture was poured into ice water. The hydrolysis of aluminum chloride and aryl borates

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Production of Alkyl Phenols by Alkylation of Triphenyl Borate

SOV/20-125-4-33/74

took place. In this connection mainly para-substituted alkyl phenols form and a usual isomerization of the primary alkyl to a secondary. Table 1 shows the production of phenols by alkylation of triphonyl borate by alkyl halides. The following experimental part provides the usual data. There are 1 table and 11 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: December 26, 1958, by S. I. Vol'fkovich, Academician

SUBMITTED: October 16, 1958

Card 2/2

S/153/60/003/005/006/016
B013/B058

AUTHORS: Sheyman, B. M., Kuskov, V. K.

TITLE: Synthesis of Alkyl Phenols From Boric Acid Esters by Means of the Friedel - Crafts Reaction

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1960, Vol. 3, No. 5, pp. 876-880

TEXT: Two methods of producing alkyl phenols are proposed in this paper: in the first place, production from symmetrical boric acid esters, in the second place, through previous production of mixed boric acid esters. In the first case, the triphenylborate was alkylated with trialkyl borates in the presence of aluminum chloride. In the second case, alkyl aryl borates were treated with aluminum chloride, and subsequently hydrolyzed. Mixed boric acid esters were obtained, like symmetrical esters (Ref. 16), by means of esterification of an alcohol phenol mixture and dehydrogenation, or by means of partial interchange of ester radicals of trialkyl borate with phenol in the presence of sodium phenolate, and distilling-off of the resulting alcohol. A pure preparation of the mixed boric acid esters was

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Synthesis of Alkyl Phenols From Boric
Acid Esters by Means of the
Friedel - Crafts Reaction

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B013/B058

not possible since they become symmetrical during distillation. This corresponds to the data of Ref. 17. The yields are higher when applying the second method. Thus, the experiments conducted under equal conditions for butyl phenols yielded 67% by the first method, and 89% by the second method. This may be due to the fact that mixed boric acid esters were present in the second case, with which the reaction may also take the course of a regrouping. As customary, the phenols were isolated with the aid of 10% NaOH (Refs. 3-5). The effect of temperature, amount of aluminum chloride, and length of the reaction, was studied by the example of n-butyl diphenyl borate. The highest yields were obtained at a duration of the experiment of 15 minutes at 80° - 95°C, using 1.3 moles of aluminum chloride per 1 mole of mixed boric acid esters. The yield of secondary butyl phenols was about 98% (77% mono- and 21% dibutyl phenol). From the mixture of the resulting o- and p-alkyl phenols, pure isomers were isolated by means of distillation. Ordinary isomerization of the alkyl group occurs under experimental conditions during alkylation. Only from the reaction of n-propyl diphenyl borate with aluminum chloride, an isomeric mixture was obtained, which consisted, on the basis of the melting points determined, of n- and

Synthesis of Alkyl Phenols From Boric Acid Esters by Means of the Friedel - Crafts Reaction

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B013/B058

isopropyl phenols. It was established that all resulting alkyl phenols only contained phenol compounds. There are 27 references: 18 Soviet, 6 US, 2 British and 2 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova, Kafedra khimicheskoy tekhnologii (Moscow State University imeni M.V. Lomonosov, Department of Chemical Technology)

SUBMITTED: January 19, 1959

Card 3/3

S/062/60/000/007/010/017/XX
B004/B064

5.3630 2209, 1231, 1266

AUTHORS: Kuskov, V. K., Fedorov, S. G., and Vol'fkovich, S. I.

TITLE: The Synthesis of Organic Phosphorus Compounds by Means of Interaction of Phosphoric Anhydride With Aluminum Phenolates

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 7, pp. 1200 - 1205

TEXT: The authors aimed at synthesizing high-molecular organic phosphorus compounds which are stable to high temperatures. They proceeded from phosphoric anhydride, aluminum phenolates, and m-cresolates. An excthermic reaction occurred at 50°C when heating approximately equimolecular quantities of P_2O_5 (7.1 g) and aluminum phenolate (18.3 g) on a sand bath in the presence of 1 g NaOH. After 10 minutes, the mixture attained a temperature of 255°C. After another 15 minutes, heating was interrupted. The reaction product

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S/062/60/000/007/010/017/XX
B004/B064

The Synthesis of Organic Phosphorus Compounds by Means of Interaction of Phosphoric Anhydride With Aluminum Phenolates

was extracted with 5% NaOH under shaking. When acidifying with 2 N HCl, a white crystalline powder precipitated. This substance was soluble in alkalies and could be precipitated again by acids. It was insoluble in water and organic solvents and only after long heating dissolved in ethanol amine or pyridine. On cooling the alkaline solution to -2°C, crystals of sodium salt precipitated as long colorless prisms. The phosphorus content of the substance was approximately 12%. Above 350°C, the substance melted and decomposed. It can be readily acetylized. The molecular weight determined from the hydroxyl number was 254 - 258. Picric acid was obtained on nitrating. Decomposition occurred with concentrated sulfuric acid and a mixture of sulfonic acids and resins formed. Bromination yielded a substance with approximately 47% bromine content which as far as the outer appearance is concerned did not differ from the initial substance. The same results were obtained with aluminum cresolate; NaOH as catalyst was not necessary. The authors suggest

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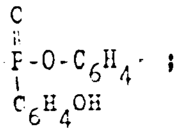
The Synthesis of Organic Phosphorus Compounds by Means of Interaction of Phosphoric Anhydride With Aluminum Phenolates

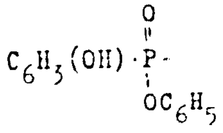
S/062/60/000/007/010/017/XX
B004/B064

three structures:



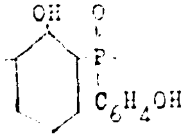
$\underset{C_6H_4OH}{\overset{C}{\overset{\|}{P}}}\text{-O-}C_6H_4\cdot$;

(I)



$C_6H_3(OH)\cdot\underset{OC_6H_5}{\overset{O}{\overset{\|}{P}}}\cdot$;

(II)



(III)

Structure III is regarded as the most probable one since it is similar to the structure of the products of the phenol formaldehyde condensation The joint polycondensation of phenol, paraform, Al-phenolate, and P_2O_5 could be easily carried out On the other hand, it was not possible to obtain a grafted product from Al-phenolate, P_2O_5 and novolak resin. There are 1 table and 13 references: 1 Soviet, 6 US, 6 German and 1 Swiss

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The Synthesis of Organic Phosphorus Compounds by Means of Interaction of Phosphoric Anhydride With Aluminum Phenolates

S/062/60/000/007/010/017/XX
B004/B064

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: January 28, 1959

Card 4/4

S/190/60/[illegible]
B024/B0[illegible]

[illegible]

AUTHORS: Be[illegible]kh, G. F., Kuskov, V. K., Gur'yanova, [illegible]

TITLE: Phosphorylation of polymers with phosphorus pentasulfide

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. [illegible], no. 12, 196[illegible], 1855-1856

TEXT: The phosphorylation of block polymerized divinyl rubber (SKB), block polystyrene as well as of novolak and resol resins with P_2S_5 was investigated. The reaction mixture was heated either in a solvent (chlorobenzene) or without any solvent until no more H_2S evolved, and subsequently hydrolyzed. An electrophilic substitution, the mechanism of which corresponds to a second-order reaction, takes place here. The phosphorylation product of SKB rubber contained [illegible] % [illegible] sulfur, 0.26 % $PO(OH)_2$ groups per fundamental unit of polymer and one double bond per four fundamental units of polymer, from which [illegible]

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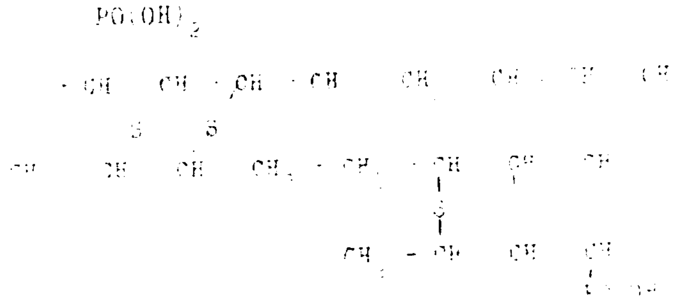
S [illegible]
[illegible]

Phosphorylation of polymers


$PO(OH)_2$

[illegible] Phosphorylation of [illegible] PO(OH) [illegible]

[illegible]

[illegible]

Phosphorylation of polymers... S/190/61/003/012/009/012
B124/B101

phosphorylation products of phenol-aldehyde resins is also low. A considerable portion of P_2S_5 reacts with the phenolic hydroxy groups of the resin to yield thiophosphoric esters which are hydrolyzed according to the equation

$$R - O - PS_2 \xrightarrow{H_2O} R - OH + H_3PO_4 + 2H_2O$$

The characteristic factors of the phosphorylation products are given in a table. There are 1 table and 10 references: 5 Soviet and 5 non-Soviet. The three most recent references to English-language publications read as follows: H. Z. Lecher, R. A. Greenwood, K. C. Whitchause, T. H. Chao, J. Amer. Chem. Soc., 78, 5018, 1956; S. Yolles, US Pat. 2829137; Chem. Abstrs. 52, 13606, 1958; J. M. Musselman, Canad. Pat. 511892.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: January 16, 1961

Card 3/3

KUSKOV, V.K.; NAUMOV, Yu.A.

Synthesis of hydroxyaryl ketones and hydroxyaryl keto acids by acylation of aluminum phenolates. Zhur. ob. khim. 31 no.1:54-59 Ja '61. (MIRA 14:1)

1. Moskovskiy gosudarstvennyy universitet.
(Ketones) (Acids) (Aluminum phenoxide)

KUSKOV, V.K.; SUSHCHENYA, V.I.

Production of alkylphenols by means of a rearrangement of alkylaeyl aluminates. Zhur.ob.khim. 31 no.7:2398-2401 Jl '61. (MIRA 14:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Phenol) (Aluminum alcoholates)

KUSKOV, V.K.; KOSTRYKINA, A.G.

Preparation of alkylphenols by the rearrangement of alkylphenyl borates in the presence of ion exchange resins. Zhur.ob.khim. 31 no.9:3104-3106 S '61. (MIRA 14:9)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Phenols) (Boric acid)

89615

S/020/61/136/002/021/034
B016/B060

5.3630

AUTHORS: Kuskov, V. K. and Bebikh, G. F.

TITLE: A New Method of Synthesizing Oxy-aryl Phosphinic Acids

PERIODICAL: Doklady Akademii nauk SSSR, 1961, Vol. 136, No. 2, pp. 354-355

TEXT: This is a report on the synthesis of oxy-aryl phosphinic acids by the phosphorylation of silicic acid or boric acid phenyl ester with phosphorus pentasulfide and a subsequent hydrolysis: $Si(OC_6H_5)_4 + P_4S_{10} \longrightarrow Si(OC_6H_4PS_2)_4 + 2H_2S$; $Si(OC_6H_4PS_2)_4 + 15H_2O \longrightarrow 4\ HOC_6H_4PO(OH)_2 + 8H_2S + H_2SiO_3$. The fact is stressed that the conventional methods (Refs. 1-4) are not always applicable. In the practice, the abovementioned phosphorylation does either not come to an end, or a cleavage of phosphoric acid comes about with phenol formation (Ref. 6). Picric acid was obtained by the nitration of p-oxy-phenyl phosphinic acid and, similarly, trinitro-metacresol from m-cresyl phosphinic acid. Both oxy-phenyl and oxy-m-cresyl phosphinic acids readily give rise to

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A New Method of Synthesizing Oxy-aryl Phosphinic Acids

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B016/B060

polycondensation products with formaldehyde. The authors conclude therefrom that they have obtained 1-methyl-3-oxy-benzene-6 phosphonic acid from m-cresol. It was noted that oxy-aryl phosphinic acids are capable of azo-coupling and of forming azo-dyes. There are 8 references: 2 Soviet, 5 US, and 1 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: July 19, 1960, by S. I. Vol'fkovich, Academician

SUBMITTED: July 16, 1960

Card 2/2

ALEKSANDROVA, G.G.; ZHUKOVA, V.A.; KONDRAT'YEV, N.N.; KUSKOV, V.K.;
MALETS, A.M.; SOLOMONOVA, N.L.; FEDOROVICH, R.M.;
VOL'FKOVICH, S.I., akademik, red.; KOROBTSOVA, N.A., red.;
YERMAKOV, M.S., tekhn. red.

[Work in technology] Tekhnologicheskie raboty. Moskva, Izd-vo Mosk. univ. 1963. 115 p. (Laboratornyi praktikum po khimicheskoi tekhnologii, no.4) (MIRA 17:1)

MUKHLENOV, I.P.; POZIN, M.Ye.; TARAT, E.Ya.; AZBEL', I.Ya.; VOL'FKOVICH, S.I.;
KUSKOV, V.K.

Bibliography. Zhur. prikl. khim. 36 no.12:2788-2792 D'63.
(MIRA 17:2)

BEBIKH, G.F.; YERSHOVA, T.V.; KUSKOV, V.K. [deceased]

Breaking of the C - P bond in arylphosphinic acids by hydrolysis. Vest. Mosk. un. Ser. 2:Khim. 19 no.1:56-59 Ja-F '64.
(MIRA 17:6)

1. Kafedra khimicheskoy tekhnologii Moskovskogo universiteta.

L 53594-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM

ACCESSION NR: AP5011855 UR/0189/65/000/002/0069/0071

AUTHOR: Fedorov, S. G.; Kuskov, V.K. (deceased); Nasonovskiy, I. S. 26 25 6

6

TITLE: Nitration and nitrosation of novolak resins

SOURCE: Moscow. Universitet. Vestnik. Seriya 2. Khimiya, no. 2, 1965, 69-71

TOPIC TAGS: resin, novolak, nitration, nitrosation, nitronovolak, aminovolak, azo coupling, aniline

ABSTRACT: Nitration and nitrosation of novolak resins were carried out to obtain new types of polymers and high molecular weight aminophenols. Novolak resin was produced either by the method of A. A. Vanshteydt, A. T. Itenberg, T. Yerlykova, and G. Zh. Simonov (Plast. massy, No. 3, 17, 1934), or of D. A. Fraser, R. W. Hall, and A. L. Raum (J. J. Appl. Chem., 7, 676, 1957). Nitration was started by adding 7.5 ml of nitric acid to a solution containing 10 g of novolak resin in 200 ml of glacial acetic acid. After an addition of concentrated brine, the precipitated novolak was filtered, washed, dried, and reprecipitated from an acetone solution. Its physical properties and chemical composition are presented. To produce

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L 53594-65

ACCESSION NR: AP5011655

aminonovolaks, 10 g of nitronovolak suspension in 100 ml of methanol were reacted with $SnCl_2 \cdot H_2O$ solution in concentrated HCl. After warming, filtering, and partially evaporating, 150 ml of concentrated HCl were added. The obtained aminonovolak chlorohydrate was dissolved in methanol and neutralized with sodium acetate to produce light yellow aminonovolak. Azo coupling of the diazotized aminonovolak with an R-salt and with naphthol, and also azo coupling of the diazotized aniline and diazotised n-nitroaniline with aminonovolak, are described, and the products of these reactions are listed. The nitrosation was started by adding 6.7 ml of concentrated HCl to a solution of 5 g in 50 ml of methanol. Next, 3.7 g of sodium nitrate dissolved in 10 ml of water were added, producing the desired precipitate. Its nitrogen contents, obtained by various authorities, are given. Orig. art. has: 2 formulas.

ASSOCIATION: Moskovskiy universitet. Kafedra khimicheskoy tekhnologii (Moscow University. Department of Chemical Engineering)

SUBMITTED: 01Jun64 ENCL: 00 SUB CODE: OC, MT

NO REF SOV: 001 OTHER: 004

[illegible]

Card 2/2

KUSKOV, Ye.

Unity of socialist countries grows stronger. Blok. agit. vod. transp. no.4:33-42 F '57. (MIRA 10:4)

(Russia--Foreign relations--Europe, Eastern)
(Europe, Eastern--Foreign relations--Russia)

KUSKOV, Ye.

Militant vanguard of the international revolutionary movement.
Komm.Vooruzh.Sil 3 no.22:19-27 N '62. (MIRA 15:12)
(Communist parties)

KUSKOV, Ye.F.; POLYAKOVA, Z.V., red.

[Electromechanical characteristics of a drive capacitor motor for an electric mine locomotive with a hydrostatic transmission]Elektromekhanicheskie kharakteristiki privodnogo kondensatornogo dvigatelia rudnichnogo elektrovoza s gidrostaticheskoi peredachei. Moskva, In-t gornogo dela im. A.A.Skochinskogo, 1962. 24 p. (MIRA 16:4)

(Mine railroads)

KUSKOV, Yelizar Il'ich; IVANOV, G., red.; DANILINA, A., tekhn. red.

[In the same rank toward the cherished goal] V edinom stroiu k zavetnoi tseli. Moskva, Gos.izd-vo polit.lit-ry, 1961. 61 p. (MIRA 15:2)

(Communist countries--Foreign economic relations)

KUSKOV, Yu. D., inzhener.

Use of the M-4 tractor loader for loading and stubbing tree stumps. Torf. prom. 34 no.5:28-30 '57. (MLRA 10:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut torfyanoy promyshlennosti.
(Tractors) (Loading and unloading)

KUDIMOV, Leonid Petrovich, inzh.; KUSKOV, Yuriy Danilovich, inzh.; SAFONOV, Konstantin Yevgen'yevich, inzh.; SOKOLOV, I.D., red.; BUL'DYAYEV, N.A., tekhn. red.

[Mechanizing the preparation of peat deposits for winning peat]Mekhanizatsiia podgotovki torfianykh mestorozhdenii dlia dobychi torfa. Moskva, Gosenergoizdat, 1962. 350 p.
(MIRA 16:4)

(Peat industry—Equipment and supplies)

KURDYUMOV, Aleksandr Aleksandrovich; BABAYEV, N.N., prof., doktor tekhn. nauk, retsenzent; FEDOSOV, M.F., nauchnyy red.; KUSKOVA, A.I., red.; KONTOROVICH, A.I., tekhn. red.

[Ship vibrations] Vibratsiia korablia. Izd.2., dop. i perer. Leningrad, Gos. soiuznoe izd-vo sudostroit. promyshlennosti, 1961. 317 p. (MIRA 14:11)

(Elastic rods and wires) (Vibration (Marine engineering))
(Ships--Hydrodynamic impact)

ALYAKRINSKIY, Georgiy Sergeyevich; ROTSHTEYN, A.I., prof., doktor ekon. nauk, zasl. deyatel' nauki i tekhniki, nauchnyy red.; SATANOVSKIY, Ya.S., retsenzent; SLONIM, A.I., retsenzent; KUSKOVA, A.I., red.; ERASTOVA, N.V., tekhn. red.

[Economic analysis of the means for lowering production costs] Ekonomicheskii analiz rezervov snizheniia sebestoimosti produktsii. Leningrad, Sudpromgiz, 1963. 20. p. (MIRA 16:6)

(Costs, Industrial)

SEMENOV-TYAN-SHANSKIY, Roman Veniaminovich; BREYEV, A.M., kand. tekhn. nauk, retsenzent; LOVYAGIN, M.A., inzh., retsenzent; KUSKOVA, A.I., red.; KOROVENKO, Yu.N., tekhn. red.

[Designing caisson docks] Proektirovanie kesson-dokov. Leningrad, Sudpromgiz, 1963. 64 p. (MIRA 16:10)
(Caissons) (Floating docks)

DREYZENSHTOK, Zundel' Borisovich; LUSHKOV, Natan Lazarevich;
DEGTYAR', T.A., inzh., retsenzent; RUBINCHIK, Yu.L.,
inzh., retsenzent; RUSSO, V.L., nauchn. red.; KUSKOVA,
A.I., red.; KOROVENKO, Yu.N., tekhn. red.

[Handbook of a welder in shipbuilding] Spravochnik svarshchika-sudostroitelia. Leningrad, Sudpromgiz, 1963. 351 p.
(MIRA 17:2)

FEDYAYEVSKIY, Konstantin Konstantinovich; SOBOLEV, Gennadiy
Vasil'yevich; BASIN, A.M., prof., doktor tekhn. nauk,
retsenzent; FIRSOV, G.A., doktor tekhn.nauk, nauchn.
red.; KUSKOVA, A.I., red.; SHISHKOVA, L.M., tekhn. red.

[Maneuverability of a ship] Upravliaemost' koroblia. Leningrad, Sudpromgiz, 1963. 374 p. (MIRA 16:8)
(Hulls (Naval architecture))
(Stability of ships)

ZAYTSEV, Nikolay Alekseyevich; MASKALIK, Aleksandr Isaakovich; PASHIN, V.M., inzh., retsenzent; KHEYFETS, L.L., inzh., retsenzent; KUSKOVA, A.I., red.

[Soviet ships on underwater wings] Otechestvennye suda na podvodnykh kryl'iakh. Leningrad, Sudostroenie, 1964. 206 p. (MIRA 17:10)

[illegible]OVICH, Lev Iosifovich; [illegible], Vasiliy [illegible]; [illegible],
Semen Elevich; KE[illegible]ING, G.B., inzh., retsenzent;
FEDOROV, N.A., nauchn. red.; [illegible], A.I., red.

[Mechanization of the manufacture of products for the
outfitting of ships] Mekhanizatsiia izgotovleniia sudo-
vykh dostroechnykh izdelii. Leningrad, Sudostroenie,
1964. 179 p. (MIRA 18:2)

GUROVICH, Arnol'd Naumovich; Prinimali uchastiye: G. [illegible], [illegible], inzh.; NEMKOVSKIY, A.E., inzh.; MALOL[illegible]V, [illegible], inzh., retsenzent; GAL'PERIN, M.I., nauchn. red. [deceased]; KUSKOVA, A.I., red.

[Ship equipment and the internal outfitting of ships] Sudovye ustroistva i vnutrennee oborudovanie sudov. Leningrad, Sudostroenie, 1964. 297 p. (MIRA 17:8)

PAVLOV, Aleksandr Ivanovich; AL'SHITS, I.M., kand. tekhn. nauk, retsenzent; KUZNETSOV, P.I., inzh.; IV[illegible], V.F., nauchn. red.; KUSKOVA, A.I., red.

[Bonded ship structures] Kleenye sudovye konstruktsii. Leningrad, Sudostroenie, 1965. 282 p. (MIRA 18:12)

ZAYCHIK, K[illegible] [illegible], [illegible]; [illegible], [illegible],
[illegible], tekhn. nauk; ROKOV, A.I., kand. tekhn. nauk;
retsenzent; SLUCHAK, L.V., inzh.; retsenzent; KAMENSKIY,
Ye.V., nauchn. red.; KUSKOVA, A.I., red.

[Seagoing fishing boats] [illegible] [illegible]ryshlennye suda.
Leningrad, Sudostroenie, [illegible]. [illegible]71 p. (MIRA 18:10)

SMIRNOVA, Muza Konstantinovna; SOKOLOV, Boris Pavlovich; SHOKIN,
Yakov Sergeyevich; IVANOV, Aleksey Pavlovich; VILUNAS,
V.P., inzh., retsenzent; KUSKOVA, A.I., red.

[Hull strength of a fiberglass boat] Prochnost' korpusa
sudna iz stekloplastika. Pod obshchei red. M.K.Smirnova.
Leningrad, Sudostroenie, 1965. 331 p. (MIRA 19:1)

KUSKOVA, K. I.

KUSKOVA, K. I. "Therapy of long-healing wounds" (According to the materials of the Veterans' Hospital in Saransk, Mordvinian ASSR). Sbornik nauch. trudov vrachey Mordov. ASSR, Saransk, 1948, p. 39-43.

SO: U-3261, 10 April 53 (Letopis - Zhurnal 'nykh Statey No. 11, 1949)

KUSKOVA, K.I. (Saransk, Mordovskoy ASSR)

Diagnosis and treatment of acute mesentreric lymphadenitis. Vest. khir. 77 no.10:92-95 O '56. (MIRA 9:12)

1. Iz respublikanskoy bol'nitsy Mordovskoy ASSR (glavnyy vrach - I.I.Kuskova)
(LYMPHADENITIS
mesenteric, diag. & ther.)
(MESENTERIES, dis.
lymphadenitis, diag. & ther.)

DAVTYAN, O.K.; KOCHKOVA, M.S.; [illegible]

Study of galvanic cells by means of hydrogen peroxide as a depolarizer. Nauch. ezhegod. Khim. fak. Od. un. no.2 117-120 '61. (MIRA 17:8)

L'VOV, S.V.; FAL'KOVSKIY, V.B.; KOSTYUK, N.G.; STARKOV, A.V.; GOLENKOVA,
I.B.; KUSKOVA, N.B.; TYURICHEVA, T.A.

Continuous method of preparation of isovaleric acid from isoamyl alcohol by a catalytic reaction. Zhur.prikl.khim. 35 no.3:700-701 Mr '62.
(MIRA 15:4)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.Lomonosova.
(Isovaleric acid) (Isopentyl alcohol)

CA KUSKOVA, N.K.

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Determination of small quantities of vanadium in steel
and pig iron. B. A. Generozov and N. K. Kuskova. Dissolve 0.2 g. of
Zhur. Anal. Khim. 1, 325-9(1946). Add HNO_3 to decomp.
steel in 10 ml. 7.2 N H_2SO_4. Dil. to 100-125
carbides and heat to remove N oxides.
ml. and add 2% $KMnO_4$ to oxidize V to the quinquevalent
state. Add 10-20 ml. of Na_2SiO_3 soln., bring to a boil,
add NH_4OH to give a distinct odor, add 10 drops of H_2O_2
to oxidize Cr^{+++} to CrO_4 and boil carefully for several
min. taking care that the soln. remains alk. Allow the
ppt. ($Fe(OH)_3$ contg. all of the V) to settle, add paper
pulp, filter, and wash with 2% NH_4NO_3 contg. a few drops

of NH_4OH. Transfer the filter to a Pt crucible and ash
carefully, avoiding fusion. Mix the residue with 2 g.
of anhyd. Na_2CO_3 and fuse at approx. 1000°. Leach
the fusion product with 25 ml. of H_2O, bring to a boil, and if
s soln. is colored, add 1-2 drops of H_2O_2 and boil for another
15 min. Filter the colorless soln. into 100-ml. volumetric
flask and wash with hot 1% Na_2CO_3. Acidify with 18 N
H_2SO_4, adding 2 ml. in excess. Add 1 ml. of 85% H_3PO_4
and 2 ml. of a 5% Na_2WO_4 soln. and, after 30 min., com-
— pare the color with standards. If more than 0.5% of
Cr is present repeat the pptn. of Fe and V in the presence
in H_2O_2. M. Hosch

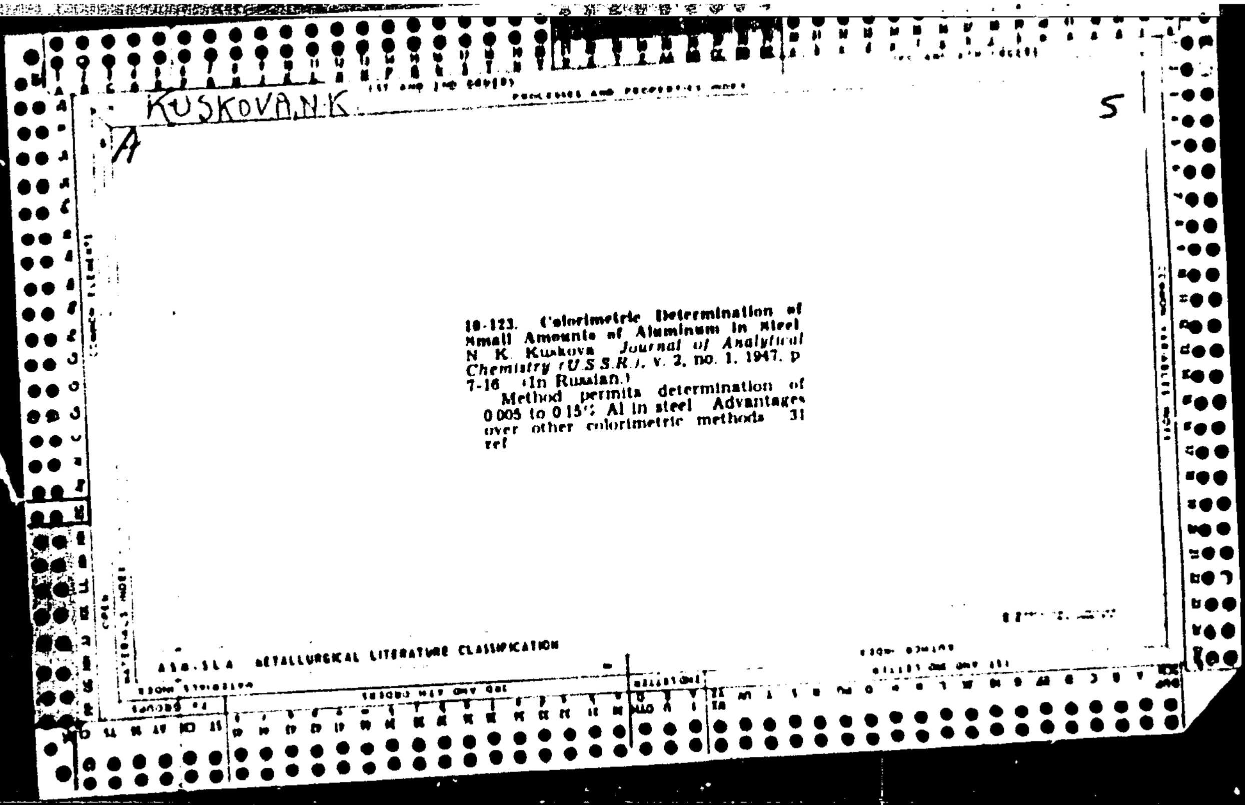
METALLURGICAL LITERATURE CLASSIFICATION

MUSHOVA, N. K.

Research Group of the Chem. Lab., Central Sci. Res. Inst. of Ferrous Metals,(-1946-)

"Estimation of Small Quantities of Vandium in Steel (cast iron),"

Zhur, Analit. Khim., No. 5-6, 1946.



KUSKOVA, N.K.

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PROCESSES AND PROPERTIES INDEX

10-123. Colorimetric Determination of Small Amounts of Aluminum in Steel. N. K. Kuskova. *Journal of Analytical Chemistry (U.S.S.R.)*, v. 2, no. 1, 1947, p. 7-16. (In Russian.)

Method permits determination of 0.005 to 0.15% Al in steel. Advantages over other colorimetric methods. 31 ref.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION